REMARKS/ARGUMENTS

In view of the foregoing amendments and the following remarks, the applicants respectfully submit that the pending claims are not rendered obvious under 35 U.S.C. § 103. Accordingly, it is believed that this application is in condition for allowance. If, however, the Examiner believes that there are any unresolved issues, or believes that some or all of the claims are not in condition for allowance, the applicants respectfully request that the Examiner contact the undersigned to schedule a telephone Examiner Interview before any further actions on the merits.

The applicants will now address each of the issues raised in the outstanding Office Action.

Information Disclosure Statement

The information disclosure statement filed on August 9, 2006 purportedly fails to comply with 37 C.F.R. § 1.98(a)(2) as not including a copy of the non-patent reference "O'Hanlon Piers Notes... ." A copy of that reference, as well as a new PTO-Form-SB08A, is enclosed. The Applicants request that the Examiner consider this reference. If the Examiner requires a new Information Disclosure Statement, the applicants request that he contact the undersigned promptly and prior to mailing any further action.

Double Patenting Rejections

Claims 1 and 39 stand rejected on the ground of non-statutory double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,771,673 ("the Baum patent") in view of U.S. Patent No. 6,640,251 ("the Wiget patent"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

A terminal disclaimer is filed herewith. Therefore, this ground of rejection is rendered moot and should be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1-5, 8-14, 19, 20, 27, 28, 39-42 and 44-46 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,147,995 ("the Dobbins patent") in view of the Wiget patent. The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Before discussing various patentable features of the independent claims, the applicants first introduce the Dobbins and Wiget patents. The Dobbins patent discusses a system for supporting virtual local area networks (VLANs). When a packet is received at an ingress point, the source system of the packet is used to look up one or more VLAN IDs, the packet is encapsulated with a header including the VLAN ID(s), and the resulting packet is flooded to other devices (switches) of the network. Local forwarding to other ports belonging to the VLAN ID is also performed. At the egress, the VLAN ID(s) in the VLAN header are used to look up ports, the VLAN header encapsulating the packet is removed and the packet is forwarded out the identified ports.

The Dobbins patent does not associate customer context information with a logical interface, where physical interfaces terminating links are associated with at least one logical interface. Further, the Dobbins patent does not remove at least a part layer 2 address information from a received packet, nor does it add customer context information to the resulting packet.

The Wiget patent concerns ***building*** virtual private LAN segments (VPLSs). To accomplish this, an ARP request is modified to replace a MAC source address with a calculated MAC address containing a tunnel end-point IP address and an optional interface unique VPN ID. (See, e.g., column 5, lines 57-65.) This is apparently to allow another device to populate an ARP table to be used to help forward packet from the source later. (See, e.g., column 6, lines 1-26.)

Having introduced the Dobbins and Wiget patents, at least some of the patentable features of the claims are now addressed.

Independent claims 1 and 39 are not rendered obvious by the Dobbins and Wiget patents because (1) these patents neither teach, nor suggest, associating customer context information with a logical interface (where a physical interface terminating a link is associated with at least one logical interface), and (2) because one skilled in the art would not have been motivated to combine these patents as proposed by the Examiner.

The Dobbins and Wiget patents neither teach, nor suggest, associating customer context information with a logical interface (where a physical interface terminating a link is associated with at least one logical interface). The Examiner contends that the Dobbins patent teaches this feature, where ports teach the physical interfaces, VLANs are logical interfaces, and port number is part of context information. (See Paper No. 20060914, page 5.) The Examiner is apparently characterizing the ports in the Dobbins patent as both the claimed physical interface and the claimed "***customer*** context" information. However, a port or port number is not customer context information. As described in the specification of the above-captioned application, customer context information may be addressing information, a customer ID, a service level, or a service type. (See, e.g., page 31, lines 5-7.) A port or port number is clearly not the same as such customer context information. Thus, independent claims 1 and 39 are not rendered obvious by the Dobbins and Wiget patents for at least this reason.

Further, one skilled in the art would not have been motivated to combine the Dobbins and Wiget patents as proposed by the Examiner. The Examiner concedes that the Dobbins patent does not teach adding customer context information to data resulting when at least a part of layer 2 address information is removed from accepted data. To compensate for this admitted deficiency, the Examiner relies on the Wiget patent, and in particular, column 4, lines 34-40 and column 5, lines 61-65. (See, e.g., Paper No. 20060914, page 6.) However, the cited portions of the Wiget patent, and indeed the Wiget patent in general, concern ***building*** VPLSs. In particular, the cited portions of the Wiget patent concern populating ARP tables later used to help forward information. On the other hand, the Dobbins patent concerns operations of a multicast VLAN system ***where tables are already populated with necessary***

information. (See, e.g., Figures 6 and 7.) Thus, one skilled in the art would not have combined teachings from the Wiget patent related to building VPLSs to operations in the Dobbins patent where VLAN information needed for forwarding data is already available. Thus, independent claims 1 and 39 are not rendered obvious by the Dobbins and Wiget patents for at least this additional reason.

Since claims 2-5, 18-14, 19, 20 and 44-46 depend, either directly or indirectly from claim 1, these claims are similarly not rendered obvious by the Dobbins and Wiget patents. Further, independent claims 27 and 40 are similarly not rendered obvious by these patents. Since claim 28 depends from claim 27, and since claims 41 and 42 depend from claim 40, these claims are similarly not rendered obvious by these patents.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Dobbins and Wiget patents, in further view of RFC 2685 to Fox ("the Fox RFC"). The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Since the purported teachings of the Fox RFC fail to compensate for the deficiencies of the Dobbins and Wiget patents with respect to claim 1 (discussed above), even assuming, arguendo, that one skilled in the art would have been motivated to combine the purported teachings of the Fox RFC as proposed, these claims would still not be rendered obvious for at least the reasons discussed above with respect to claim 1. Therefore, claims 6 and 7 are not rendered obvious by the Dobbins patent, the Wiget patent, and the Fox RFC for at least this reason.

Claims 21, 25, 26, 31, 32 and 35-37 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Wiget patent in view of the Fox RFC. The applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection in view of the following.

Independent claim 21 is not rendered obvious by the Wiget patent and the Fox RFC at least because these references neither teach, nor suggest, customer context information associated with the logical interface uniquely associated with the first

customer device, where ***each logical interface is uniquely associated with a customer device***. The Examiner first contends that the tunnel end-point IP address in the Wiget patent teaches the claimed customer context information, and later apparently contends that the VPN ID teaches the claimed customer context information that uniquely identifies the customer. (See Paper No. 20060914, page 14.) Thus, the Examiner is apparently modifying the Wiget patent to replace the tunnel end-point IP address in the Wiget patent with the VPN ID of the Fox RFC that uniquely identifies a customer. The applicants believe that such a modification would hinder, if not destroy, the critical address resolution aspect of the Wiget patent. Consequently, one skilled in the art would not have been motivated to combine the references as proposed by the Examiner. Further, nothing in these references teach or suggest customer context information associated with the logical interface uniquely associated with the first customer device, where ***each logical interface is uniquely associated with a customer device***.

Claim 21 is not rendered obvious by the Wiget patent and the Fox RFC for at least the foregoing reasons. Since claim 25 depends from claim 21, and since claim 26 depends from claim 25, these claims are similarly not rendered obvious by these references.

Similarly, independent claim 31 is not rendered obvious by the Wiget patent and the Fox RFC at least because these references neither teach, nor suggest, customer context information associated with the logical interface uniquely associated with the first customer device, where ***each logical interface is uniquely associated with a customer device***. Since claims 32 and 35-37 depend, either directly or indirectly, from claim 31, these claims are similarly not rendered obvious by these references.

New claims

New claims 47 and 48 depend from claims 1 and 39, respectively, and further recite that each of the at least one logical interfaces may be associated with only one physical interface, and may not be associated with more than one physical interface.

These claims are supported, for example, by page 44, lines 16-20. These claims further distinguish the claimed invention over the cited art.

Conclusion

In view of the foregoing amendments and remarks, the applicant respectfully submits that the pending claims are in condition for allowance. Accordingly, the applicants request that the Examiner pass this application to issue.

Respectfully submitted,

February 13, 2007

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper (and any accompanying paper(s)) is being facsimile transmitted to the United States Patents and Trademark Office on the date shown below.

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February 13, 2007
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